

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Application of:

G. Eric Engstrom

Application No.: 10/551,254

Filed: June 26, 2006

Confirmation No.: 1806

For: WIRELESS MOBILE PHONE  
WITH AUTHENTICATED MODE  
OF OPERATION INCLUDING  
HEART BEAT PROFILE BASED  
AUTHENTICATION

Examiner: Doan, Kiet M.

Group Art Unit: 2617

Customer No.: 60,172

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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

This communication is submitted in response to the Final Office Action ("FOA") mailed November 2, 2009.

In the FOA, claims 1-3, 7-9 and 12-17 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,788,928 to Kohinata ("Kohinata") in view of U.S. Patent No. 4,320,767 to Villa-Real ("Villa-Real"). Claims 4, 5, 6 and 10-11 were rejected under 35 U.S.C. § 103(a) as obvious over Kohinata in view of Villa-Real and further in view of U.S. Pub. No. 2004/0024706 to Leduc ("Leduc"). Applicants respectfully submit that the cited references, alone or in combination, fail to teach or suggest the features of the claims.

"All words in a claim must be considered in judging the patentability of that claim against the prior art." **M.P.E.P. § 2143.03**. Distilling an invention down to the "gist" or

"thrust" of an invention disregards the requirement of analyzing the subject matter "as a whole." A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. **MPEP 2141.02**, citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

Claim 1 recites a wireless mobile phone comprising, in relevant part, **“a plurality of sensors to facilitate real time capturing of a heart beat profile of a user from the user’s hand” and “operating logic to receive the real time captured heart beat profile of the user and to selectively operate the components depending on whether the user is successfully authenticated via a real time captured heart beat profile of the user.”**

Kohinata does not teach or suggest these features. Kohinata merely teaches a cellular phone with a temperature obtaining unit 15 with a plurality of temperature sensors on the surface of the phone. These sensors measure the body temperature of the user when touched and the ambient temperature of the phone when the phone is not being touched (col. 4, lines 31-39). When the temperatures measured are within a range of threshold temperatures, a temperature comparator 16 judges that the phone is being touched by the user. The temperature comparator unit then instructs the biodata obtaining unit 19 to obtain the user’s fingerprint for authentication of the user (see e.g. col. 4, lines 54-63).

Kohinata **teaches away** from claim 1 by disclosing that fingerprint data – not the temperature data acquired by the “sensors” – is used to authenticate the user (see e.g. col. 3, lines 42-47). In contrast, claim 1 requires that the information captured by the sensors (i.e. heart beat profile of the user) is the information that is used to authenticate the user. Even if sensing a cellular phone temperature were analogous to capturing a heart beat profile

(Applicants do not concede this), Kohinata still does not teach or even suggest authenticating a user based on the data acquired by the “sensors”.

Therefore, Kohinata does not teach or suggest the features of claim 1. Further, even if the Examiner’s reading of the secondary arts are correct, by virtue of the fact that Kohinata **teaches away** from the claimed invention, combination with the secondary references would not suggest the claimed invention, when the claimed invention is viewed as a whole as required by law.

Even if we ignore the foregoing, the Examiner conceded on page 3 of the FOA that Kohinata fails to teach “capturing of a heart beat profile.” Villa-Real is cited for teaching this feature. But a close reading of Villa-Real shows that Villa-Real cannot remedy the deficiencies of Kohinata. First, like Kohinata, Villa-Real does not teach or suggest “**a plurality of sensors to facilitate real time capturing of a heart beat profile of a user from the user’s hand.**” At most, Villa-Real merely teaches a hand-held device for measuring blood pressure and pulse rate, which includes a single acoustical transducer 1 (see e.g. Fig. 1; col. 10, lines 5-15). Applicants further note that while Figures 1, 4, 7 and 11 show electronic devices held by a hand, they do not show the electronic devices capturing the pulse or heart rate of the hand, as asserted on page 3 of the FOA. Instead, the acoustical transducer 1 and the portion gripped by the hand are shown disposed at opposite ends of the device, and Figure 11 shows the device applied against an upper arm.

Next, Villa-Real does not teach or suggest “**operating logic to receive the real time captured heart beat profile of the user and to selectively operate the components depending on whether the user is successfully authenticated via a real time captured heart beat profile of the user.**” Villa-Real does not teach or suggest any sort of

authentication procedure, nor does this reference suggest selective operation of a mobile device depending on such authentication.

Finally, Applicants respectfully note that the cited combination does not teach a “heart beat profile” or offer any suggestion that a user’s heartbeat profile might be suitable for use in authenticating a user. Kohinata leads away from such a conclusion by teaching that temperature, a physical parameter which falls within a relatively narrow range for all potential human users and would not remain constant for any user, is **not** used as the basis for authentication. Kohinata teaches instead that authentication is based on the user’s fingerprint, a physical feature commonly understood to be both permanently fixed and unique to each user. Therefore, a person having ordinary skill in the art would lack motivation to combine the references in the manner suggested.

For at least the above reasons, Applicants respectfully submit that claim 1 is allowable over the cited references.

Claims 2-6 depend from claim 1, incorporating its recitations, and are thus allowable over the cited references for at least the same reasons and for their additional recitations.

Claims 7, 12 and 15 recite features substantially similar to those of claim 1, and are therefore allowable over the cited combination of reference for at least the same reasons.

Claims 8-11, 13-14, and 16-17 depend from claims 7, 12, and 15, respectively, incorporating the recitations of their base claims. Therefore, claims 8-11, 13-14, and 16-17 are allowable for at least the same reasons, as well as for their additional recitations.

Claims 4, 5, 6, and 10-11 were rejected as being obvious over Kohinata in view of Villa-Real and Leduc. But Leduc cannot remedy the deficiencies of Kohinata and Villa-Real. Leduc merely teaches a smart card (“emergency call device”) with memories 22 that

include biometric information about the user (see [0031]-[0034]. Like Kohinata, Leduc teaches authentication by fingerprint (see e.g. [0041]). Authentication by fingerprint initiates an emergency call and access to server 12 (see [0041]-[0043]). The smart card may then send to the server data from medical sensors 30, which are disposed on a user's body and connected to the smart card by I/O circuit 26 (see [0041]-[0045]).

Like Kohinata and Villa-Real, Leduc neither teaches nor suggests authenticating a user (and thus selectively operating a mobile phone) based on a heart beat profile captured in real time from the user's hand. Thus, claims 4, 5, 6, and 10-11 are allowable over the cited combination of Kohinata, Villa-Real and Leduc.

### **CONCLUSION**

Applicants believe that all claims are in condition for allowance. The Examiner is invited to telephone the undersigned representative at (206) 407-1569 if the Examiner believes that an interview might be useful. If additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). If any fees are due in connection with filing this paper, the Commissioner is authorized to charge the Deposit Account of Schwabe, Williamson and Wyatt, P.C., No. 50-0393.

Respectfully submitted,  
SCHWABE, WILLIAMSON & WYATT, P.C.

Date: December 29, 2009 by: /Jo Ann Schmidt/

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